



## PATENT ABSTRACTS OF JAPAN

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YAMASHITA TAKASHI**(54) **FEEDBACK TYPE SWITCHING POWER  
AMPLIFIER**

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## (57) Abstract:

**PURPOSE:** To prevent the generation of output waveform distortion over a wide frequency band by properly adjusting the arrangement of a pole and zero in a gain compensation circuit thereby making the frequency characteristic of a voltage amplification factor flat.

**CONSTITUTION:** A gain compensation circuit is interposed between an input signal source 2 and an error voltage amplifier circuit B in the feedback type switching power amplifier  $\beta$ . A differentiation compensation circuit D is adopted for the gain compensation circuit of the amplifier  $\beta$ . Let a frequency of a pole Q and a zero 0 of the circuit D be  $\omega p2$ ,  $\omega z2$  then the condition of obtaining a flat gain characteristic to cancel the pole Q and the zero 0 is expressed as  $\omega p = \omega w z$  and  $\omega p1 = \omega p2$  (where frequencies at low frequency band for the pole Q and the zero 0 are  $\omega p1$ ,  $\omega z$ ). The flat gain characteristic is realized in the feedback switching power amplifier  $\beta$  having the circuit D with a  $C_3$  and  $R_7$ - $R_9$ .

